

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7708

Joint Petition of Vermont Electric Power Company, Inc., )  
and Vermont Transco LLC (collectively known as )  
VELCO), and Vermont Electric Cooperative, Inc. (VEC) )  
for a certificate of public good, pursuant to 30 V.S.A. )  
Section 248, authorizing the construction of: (1) a new )  
VELCO 115/46 kV Substation in Jay, Vermont, to be )  
located adjacent to VEC's existing Jay Peak Switching )  
Station; (2) modification of transmission lines; and (3) )  
relocation of a residence drive and improvement of an )  
access road )

Hearing at  
Montpelier, Vermont  
May 20, 2011

Order entered: July 29, 2011

PRESENT: John J. Cotter, Esq., Hearing Officer

APPEARANCES: Joslyn Wilschek, Esq.  
Primmer Piper Eggleston & Cramer PC  
for Vermont Electric Power Company, Inc.,  
Vermont Transco LLC, and Vermont Electric  
Cooperative, Inc.  
Victoria Brown, Esq.\*  
for Vermont Electric Cooperative, Inc.

John Beling, Esq.  
for Vermont Department of Public Service

Donald J. Einhorn, Esq.  
for Vermont Agency of Natural Resources

\* Party of record, but did not attend hearing

## **I. INTRODUCTION**

This case concerns a petition filed by Vermont Electric Power Company, Inc. and Vermont Transco LLC (collectively referred to as "VELCO") and Vermont Electric Cooperative, Inc. ("VEC") (together with VELCO, the "Petitioners") on January 19, 2011, requesting a certificate of public good ("CPG") under 30 V.S.A. § 248 to construct a new VELCO substation (the "Jay Tap Substation") with associated protection and control equipment, and to make related improvements in Jay, Vermont (the "Project"). In this Proposal for Decision, I recommend that the Public Service Board approve the proposed Project and issue a CPG to the Petitioners authorizing construction of the Project, with conditions.

## **II. PROCEDURAL HISTORY**

On January 19, 2011, the Petitioners filed a joint petition with the Board requesting a CPG under 30 V.S.A. § 248 authorizing the construction of a new VELCO substation and related improvements off of Leavitt Circle in the Town of Jay, Vermont.

Additionally, on January 24, 2011, VEC filed a separate petition seeking an amendment to a CPG it was issued on August 6, 2010, in Docket 7604, authorizing the construction and operation of what is known as the Jay Peak Switching Station. The purpose of the requested amendment is to allow VEC to interconnect the switching station with the Jay Tap Substation if the substation is approved and constructed. Because there were common questions of law and fact involved in both this proceeding and in the Docket 7604 amendment proceeding, VEC requested that the technical hearings for both Dockets be held concurrently. VEC represented that VELCO joined in its request. Neither the Department of Public Service ("DPS") nor the Agency of Natural Resources ("ANR") objected to the request that the two proceedings follow concurrent schedules.

On February 15, 2011, a prehearing conference was held in this Docket. Appearances were entered by Joslyn L. Wilschek, Esq., and Elijah D. Emerson, Esq., Primmer Piper Eggleston & Cramer PC, for VELCO and VEC, John Beling, Esq., for the DPS, and Donald J. Einhorn, Esq., for ANR.

A Joint Scheduling Order was issued March 16, 2011, establishing the schedule for this proceeding, extending that same schedule to the review of the requested amendments to the CPG issued in Docket 7604, and stating that this docket and Docket 7604 would remain separate, each with its own caption and orders, but that the technical hearings for both proceedings would be consolidated.

On March 14, 2011, a site visit was held at the proposed Project site adjacent to Leavitt Circle in the Town of Jay. A public hearing was held that same evening at the Town of Jay Town Hall. Three members of the public spoke at the public hearing, asking for additional information on project details and costs from the Petitioners.

No motions to intervene were filed in this proceeding.

On April 6, 2011, VELCO filed the Supplemental Prefiled Testimony of Scott Mallory.

On May 12, 2011, the DPS filed a determination that the proposed Project is consistent with the *Vermont Electric Plan*, in accordance with 30 V.S.A. § 202(f).

On May 13, 2011, VELCO, VEC, DPS and ANR filed a Memorandum of Understanding ("MOU") and a draft Proposal for Decision ("PFD").

A technical hearing was held on May 20, 2011.

On May 25, 2011, the Petitioners filed: (1) ISO-NE's I.3.9 approval letter; (2) the U.S. Army Corps of Engineers Vermont General Permit governing disturbance to wetlands; (3) ANR's Stormwater Construction General Permit (3-9020) and associated site-specific EPSC; and (4) ANR's Individual Wetlands Permit. These documents were filed in response to a records request made by Board staff at the May 20, 2011, technical hearing. I am hereby conditionally admitting these documents into the evidentiary record for the purpose of relying on them in making findings in this Proposal for Decision. If any party objects to their inclusion in the evidentiary record, they shall have ten days from the date of this Proposal for Decision to file such an objection with the Board. If no such objections are filed, the documents shall be deemed unconditionally admitted into the record. For the purpose of this Proposal for Decision and a Final Board Order in this matter, documents 1 through 4 above shall be referred to as Exhibits Petitioners 1 through 4, respectively.

### **III. FINDINGS**

Based upon the Petition, the associated prefiled testimony, the MOU, the evidence presented at the Technical Hearing, and the supplemental prefiled testimony, I have determined that this matter is ready for decision. Based on the evidence of record, I hereby report the following findings to the Board in accordance with 30 V.S.A. § 8.

#### **Background and Project Description**

1. VELCO is a company as defined by 30 V.S.A. § 201, and as such is subject to the Vermont Public Service Board's jurisdiction pursuant to 30 V.S.A. § 203. Petition at 1.
2. VELCO's office is located at 366 Pinnacle Ridge Road, Rutland, Vermont. Petition at 1.
3. VEC is a company as defined in 30 V.S.A. § 201 and holds a CPG issued under 30 V.S.A. § 231. Petition at 2.
4. VEC's offices are located at 42 Wescom Road, Johnson, Vermont. Petition at 2.
5. The proposed Project consists of the following:
  - Construction of a new substation on a four-acre parcel of land that VELCO plans to purchase immediately to the north and west of, and adjacent to, VEC's Jay Peak Switching Station, and to the west of the western edge of Leavitt Circle, in the Town of Jay, Vermont.
  - Installation of a four-circuit-breaker 115 kV ring bus with two 56 MVA 115/46 kV transformers, two 46 kV circuit breakers, station service, and switches and other associated equipment within the substation.
  - Construction of a building to house the protection, control, monitoring, battery, station service, and communication equipment.
  - Modification to VELCO's existing adjacent 115 kV transmission line to connect to the north and west sides of the proposed substation consisting of removal of two wood structures and replacement with five wood structures and associated 1272 kcmil ACSR conductors.
  - Modification to VELCO's existing adjacent 46 kV subtransmission line (which VELCO leases to VEC for operation) and communication circuit to connect to the west side of VEC's Jay Peak Switching Station, consisting of removal of two wood poles and replacement with four wood poles and associated conductors outside of VEC's switching

station, and the installation of a new steel pole turning structure inside VEC's Jay Peak Switching Station needed to complete this line.

- Relocation of a residential drive to outside of the Project area to allow access to the property immediately to the west of the Project area.
- Improvement of the access road to the substation from Leavitt Circle for transfer of heavy loads.

Petition at 3; Mallory pf. at 3.

6. VELCO will own and manage the proposed Project, which includes designing, constructing and maintaining the Project facilities. Mallory pf. at 6.

7. With respect to the transmission-line changes, VELCO proposes to shift the 115 kV line coming from the east slightly to the north so that it may enter the proposed substation directly from the north. Mallory pf. at 4; exh. VELCO-Mallory-2.

8. VELCO proposes to orient the substation ring bus with its longest dimension running from north to south to: (1) accommodate efficient connections from the two transformers to bays of the previously designed and approved VEC Jay Peak Switching Station; (2) accommodate a temporary bypass of the 115 kV transmission line during substation construction; and (3) minimize land usage and wetland impacts to the west. This plan will require VELCO to purchase small amounts of added right-of-way easement in two locations: to the east of the western edge of Leavitt Circle (north of structure #173N), and to the west of the western edge of Leavitt Circle (north of structure #174). Mallory pf. at 4; exh. VELCO-Mallory-2.

9. VELCO also proposes to shift VELCO's 46 kV line coming from the west to the southern border of the substation grading area to allow for Project elements and grading. Mallory pf. at 4; exh. VELCO-Mallory-2.

10. With the exception of one steel turning structure within the Jay Peak Switching Station, all new structures will be wood and are designed to match the existing structure types at this site. Mallory pf. at 4; exh. VELCO-Mallory-2.

11. In addition to VELCO's standard substation design of switched fence lights and switched and photoelectric controlled lights on the control building, VELCO plans to install switched yard lights on the lightning masts to provide a safe working environment. VELCO will

use the switched lights only when necessary for nighttime switching and maintenance activities. Mallory pf. at 5.

12. The Substation General Arrangement Plan shown on Exhibit VELCO-Mallory-2 denotes several items as "future" (i.e., grayed-out or with dashed lines) that are not part of this CPG request. These possible future components include the addition of a 46 kV bus tie and circuit breaker, and two 115 kV capacitor banks, circuit breakers, bus support, and switches. The Petitioners are not seeking Board review of these components in this proceeding and do not plan on installing them at this time. Mallory pf. at 5; tr. 5/20/11 at 16 (Mallory).

13. In order to provide power during construction, the Petitioners plan to install temporary power and communication circuits at the Project site, which will remain in place only until completion of substation construction activities. Mallory pf. at 5.

14. As part of the Project, VEC will need to relocate to the south the existing Richford-Jay Switching Station 46 kV line to provide space for the construction of the VELCO Substation. Abendroth pf. at 6.

15. The Petitioners expect to store and assemble Project materials within the site area and/or within the VELCO right-of-way, the same area that VELCO has assessed under the Section 248 environmental criteria. Mallory pf. at 12.

16. VELCO will commence construction upon receipt of a CPG and expects to complete the Project prior to September 1, 2012. Petition at 4; Mallory pf. at 12.

### **The Memorandum of Understanding**

17. On May 13, 2011, VELCO, VEC, DPS and ANR filed a Memorandum of Understanding ("MOU") and a draft Proposal for Decision. Exh. Joint-1.

18. In the MOU, the parties agree, subject to certain conditions, that the Board should approve the proposed Project as consistent with the general good of the state, and that the Board should adopt proposed findings of fact and a proposed order attached to the MOU as Attachment 1. Exh. Joint-1 at 2.

**Review of Project under the Section 248 Criteria****Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

19. The proposed Project will not unduly interfere with the orderly development of the region. This finding is supported by findings 20 through 22, below.

20. The Project is consistent with the plans of the Town of Jay and the Northeastern Vermont Development Association ("NVDA"), each of which has waived the 45-day advance notice requirement and supports the Project. Mallory pf. at 22; exh. VELCO-Mallory-11.

21. NVDA adopted its Regional Plan for the Northeast Kingdom on June 29, 2006. The first goal in Chapter 2 is to "(p)rovide an adequate, reliable, and secure energy supply to meet the region's needs." The chapter proceeds to prescribe strategies to meet energy goals, one of which is to "(p)romote the upgrade of regional transmission systems to reduce gateway constraints." Mallory pf. at 22-23 (quoting Regional Plan).

22. The Project will have a positive effect on orderly development of the region by improving and providing necessary additional electrical support to meet the growing demands of the region. Mallory pf. at 22.

**Need for Present and Future Demand for Services**

[30 V.S.A. § 248(b)(2)]

23. The Project meets the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency load management measures. This finding is supported by findings 24 through 45, below.

24. The proposed Project meets present and future demand during all conditions, including those of equipment maintenance and failure, by enhancing the transmission system's ability to provide adequate electric supply to VELCO and VEC's 46 kV system area. Mallory pf. at 6.

25. The area of need covers Franklin, Essex, Orleans, and Caledonia counties in northern Vermont. This area constitutes the majority of VEC's service area (approximately 20,000

customers) that is connected to the 46 kV system in far northern Vermont and is fed by 115 kV transformers at Highgate, Newport and Irasburg. Mallory pf. at 6; exh. VELCO-Mallory-4.

26. VELCO's Highgate 115 kV source partially serves the area of need on a radial basis (the "minority load"). Additionally, only one active 115 kV source from the statewide transmission network (i.e., the VELCO Irasburg substation, or the VELCO Newport substation depending on the system configuration at the time) serves the larger portion of VEC's load within the area of need (the "majority load," which is approximately 53% of the 2012 load or 60 MW). In addition, this VEC 46 kV area has limited generation sources. Specifically, VEC has a medium-sized generator connected to the minority load area near Highgate, and has only small amounts of generation (i.e., rated capacity at only 15% of the load level) that can serve the majority load area. VEC currently operates this 46 kV sub-transmission system as a radial system with east-west and north-south paths with long distances between sources of support and areas of load. This configuration creates a lack of supply redundancy as well as voltage support problems in the case of transmission-element failure or maintenance, or with significant future load increases. Mallory pf. at 6-7.

27. VELCO has reliability concerns for its 115 kV system in this same area as well. Under certain identified contingencies within the current VELCO system, VELCO would not be able to serve VEC's system until VELCO brought a replacement transformer into service (taking typically three to four days in good weather). Further, the ability to take one of VELCO's existing 115 kV transformers out of service for maintenance is currently limited by a small time frame of light loads. Expected future load growth will reduce this time frame further, negatively impacting the ability to perform maintenance without customer outages. This risk of VEC customer outages would be in addition to those potentially brought about by low voltage, or voltage collapse, on the 46 kV system. Mallory pf. at 7.

28. On behalf of VEC, VELCO hired RLC Engineering to identify the specific problems in VEC's 46 kV service area and to recommend solutions. In conducting its analysis, RLC Engineering used VEC's reliability criteria and load forecast, and a model of the electric system to test the system under numerous conditions and contingency events. Mallory pf. at 8; exh. VELCO-Mallory-5 (Confidential); exh. VELCO-Mallory-18.



29. VEC's reliability criteria require recovery from an N-1 or single contingency condition (e.g., the outage of an element of the transmission system network) with customer outages being limited to seconds or a few minutes when relying on the VELCO network for transmission supply (as opposed to the Hydro-Quebec system as explained below). Mallory pf. at 12.

30. VEC's updated load forecast shows a higher load in its 46 kV service area, which in turn creates a need to resolve the deficiencies identified by RLC Engineering in a timely fashion. In terms of improving the reliability of VEC's 46 kV transmission system, the Project is the most urgently needed of the improvements recommended by RLC Engineering. VEC has advanced the anticipated date of need for the VELCO Jay Substation to winter 2012-2013, due to the change of ownership at Jay Peak Ski Resort, and the new management team accelerating prior long-term plans for development at the resort. In addition, VEC management increased its commitment to improve reliability on its system. Mallory pf. at 8; Abendroth pf. at 4.

31. Since RLC Engineering completed its work for the Section 248 filing for this Project, Jay Peak Resort has identified the following new loads:

- Village Townhouse Buildings (34 condominiums), December 2011 in-service date for 60 kW
- Village Townhouse Buildings (34 condominiums), December 2012 in-service date for 60 kW
- Village Townhouse Buildings (34 condominiums), December 2013 in-service date for 60 kW

Exh. Joint-1 at 3. (Memorandum of Understanding).

32. In addition to the new load described in the preceding paragraph, VEC's previously identified load associated with Jay Peak's West Bowl expansion, approximately 6 MW, is now firmly scheduled for winter 2012-2013. Previously, there was some possibility that VEC would not see the full impact of this load until winter 2013-2014. Exh. Joint-1.

33. The Jay Substation provides a new supply source to the center of the east-west 46 kV path and, with VELCO's existing Irasburg 115/46 kV supply source, provides redundant VELCO

feeds. Thus, when the majority load is relying on the VELCO system, there would be two supply points to the 46 kV system: one at Jay and one at Irasburg. Mallory pf. at 9.

34. The proposed Project includes a second transformer to provide a redundant 115/46 kV supply to the majority load area which provides needed voltage support and transformation capacity to the 46 kV system area. Highgate would continue to supply the minority load area on a radial basis, but in the event of a fault at Highgate, the proposed Jay Substation could pick up the dropped load. Mallory pf. at 10.

35. There are times when the majority of the VEC area load is physically disconnected from the VELCO/U.S. system and is instead connected to the Hydro Quebec ("HQ") system. In this configuration, this block of load connects to and relies solely on one transmission line from the HQ system in Canada and the VELCO Newport 115/46 kV transformer. This "Block Load" is placed on the HQ system for various Vermont utilities to receive contract deliveries of power from HQ. Because of this situation, the RLC Engineering analysis assessed system conditions and determined solutions to meet reliability criteria under both scenarios: VELCO supplying the Block Load and HQ supplying the Block Load. The chosen package of solutions does not change based on the two different configurations. Mallory pf. at 10-11.

36. For reasons of power supply diversity and redundancy for reliability, it is not desirable to rely on the HQ source for the Block Load. First, the current contract deliveries from HQ may be reduced by up to 75% commencing as early as 2012. Second, when HQ supplies the Block Load, the largest contingency risk is an outage or failure of the single transmission line from HQ to Newport or of the VELCO Newport transformer. If this occurs, the remedy is to connect the entire VEC load to the VELCO network, which cannot support the VEC load without the proposed system upgrades. Mallory pf. at 11; exh. Joint-1 at 4.

37. VELCO and VEC are designing system upgrades to allow for the VELCO system to supply firm transmission service to VEC's entire load at all times, which is consistent with VEC's reliability criteria, i.e., rely on the VELCO network for transmission supply rather than the HQ network. This system design of VELCO serving the load at any time is also consistent with the VELCO 2009 Long Range Transmission Plan and with VELCO's Northern Loop Project, Docket

No. 6792, which covered the acquisition and modifications of the Citizens Utilities system that VELCO and VEC now own. Mallory pf. at 11.

38. There are additional benefits from the Project. There is potential for additional significant load growth on the VEC system given the expansion plans of the Jay Peak Resort that VEC would likely not be able to support with its current system design and capacity. The addition of a 115/46 kV source connected directly to VEC's system that improves reliability would allow for such economic development. Mallory pf. at 12.

39. The same benefits cannot be achieved in a more cost-effective manner by efficiency, generation, conservation or other load management measures. The reliability need to create supply redundancy is generally not conducive to being solved by Non-Transmission Alternatives ("NTAs") because of the large order of magnitude of load reduction that is generally needed. To ensure a full evaluation of NTAs, VELCO and VEC commissioned LaCapra Associates to perform a detailed NTA analysis that is consistent with the RLC Engineering analysis. Mallory pf. at 15; exh. VELCO-Mallory-9 (Confidential); exh. VELCO-Mallory-18.

40. The NTA assessment investigated energy efficiency, generation, and demand response options to solve the area's needs with a level of reliability equivalent to that achieved by transmission solution Alternative 1a, which is a series of recommended improvements that includes the proposed Project. The study finds that under the designated reliability criteria, relying on the VELCO network, NTA scenarios that produced comparable reliability to the transmission solution ranged from \$414 million to \$544 million in net present value (NPV) costs, excluding the capital costs of added energy efficiency. These costs are considerably higher than the proposed transmission solution package of \$35.7 million 2012 NPV. The NTA costs are higher due to the large amount and annual exposure time of the load that these reliability deficiencies exist for, which would need to be supported by running generation in the alternative. The transmission solution recommended by RLC Engineering has a significantly lower cost than any NTA scenario studied. Exh. VELCO-Mallory-9 (Confidential); exh. VELCO-Mallory-19; Mallory pf. at 15-16.

41. VELCO investigated a number of other transmission solutions to solve the identified reliability deficiencies within the RLC Engineering analysis. Of the nine transmission solution

packages studied, the chosen Alternative 1a was at least \$10.2 million less expensive than the others on a "year-of-expenditure" cost basis. Exh. VELCO-Mallory-5 (Confidential); exh. VELCO-Mallory-18; Mallory pf. at 16; exh. VELCO-Mallory-6.

42. In addition, VELCO found two other potential solutions to the area's reliability deficiencies during the study period that did not contain the Jay substation as an element and provided voltage levels that were sufficient to be considered. The non-Jay transmission alternatives 1 and 3 studied within the RLC Engineering report (Confidential Exhibit VELCO-Mallory-5) were configured such that the referenced "parallel 46 kV lines" were on structures physically separated from those of the existing/reconductored line, requiring additional right-of-way to accomplish the proper electrical clearance between the structures. This configuration was considered to provide redundant electrical paths to improve reliability, not for additional capacity. Mallory pf. at 16-17; exh, Joint-1.

43. VELCO, however, found these transmission alternatives to the Project to be \$21.9 to \$24.5 million more costly on a year-of-expenditure basis, primarily because their elements included significant reconductoring and/or rebuilding of the 46 kV line, with additional right-of-way easements needing to be procured, as well as new or rebuilt 46 kV switching stations at either end. Mallory pf. at 16-17; tr. 5/20/11 at 6-7 (Mallory).

44. VELCO submitted a revised second page of Exhibit VELCO-Mallory-6 (Attachment 2 to Exh. Joint-1) showing that the Irasburg to Irasburg Tap 46 kV rebuild should only be approximately 1 mile in length instead of 7 miles. The corrected version shows the revised year-of-expenditure cost of this potential alternative to be \$67.2 million, which equates to \$21.9 million more than the preferred alternative package of transmission elements instead of \$29.3 million. This change does not alter the conclusion that the proposed preferred package of new transmission elements, including the proposed Project, is the least-cost solution. Exh. Joint-1 at 4 and Attachment 2.

45. VEC needs the proposed Project regardless of whether the proposed Kingdom Community Wind Project (reviewed in Docket No. 7628) is constructed. Exh. Joint-1 at 3.

**System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

46. The proposed Project will not have an adverse impact on system stability and reliability. This finding is supported by findings 47 through 48, below.

47. VELCO has determined in its transmission system planning analysis that the Project will have no adverse impact on the stability and reliability of the VELCO transmission system. The Project will improve system reliability by providing a redundant source and path of power, as well as voltage support, to the area of need. Mallory pf. at 12.

48. The New England Power Pool task force working groups have reviewed the Project design and potential for impacts to the New England bulk power system. They support the Project, and have recommended that ISO-NE issue a letter of no adverse impact. On February 7, 2011, VELCO received ISO-NE's final technical approval for the Project (i.e., no adverse reliability impacts to the ISO-NE system as per section I.3.9 of the ISO-NE tariff), allowing VELCO to construct the Project. Mallory pf. at 13; Mallory pf. supp. at 2.

**Economic Benefit to the State**

[30 V.S.A. §248(b)(4)]

49. This Project creates an economic benefit to the State of Vermont because it is the least-cost alternative to resolve the most urgent of the VEC reliability needs identified by RLC Engineering. By improving the reliability of the electrical system in Franklin, Essex, Orleans, and Caledonia Counties, the Project will avoid the costs and safety problems associated with power outages. Further, the Project will allow for expected future economic development in the northern area of VEC's system. Mallory pf. at 23.

50. The Project allows for an expected level of economic growth in the service area and will provide reliable electric service to meet the pressing capacity needs of the system in this area. Mallory pf. at 23; exh. VELCO-Mallory-12.

51. The Project costs are allocated based on their asset classification. The following are the current estimated dollar values by asset classification:

Pool Transmission Facilities (PTF):	\$ 6,491,697
Non-PTF Specific Facilities:	\$ 9,934,954
Non-PTF Exclusive Facilities and VEC's	
Exclusive Portion of Shared Use Facilities:	\$ 269,341
Non-PTF General Plant:	\$ 126,151
Total:	\$16,822,143

Mallory pf. at 14-15; exh. VELCO-Mallory-8.

52. The costs for each category are allocated according to VELCO's transmission tariffs. Regarding the Specific Facility charges that are to be shared among benefitting Vermont utilities, VEC has agreed to pay the costs as the sole beneficiary within its construction request letter to VELCO. Mallory pf. at 15; exh. VELCO-Mallory-8.

53. The budget estimate for the Project is \$16.8 million, plus approximately \$200,000 to reroute a 46 kV line. Mallory pf. at 13; Abendroth pf. at 6.

**Aesthetics, Historic Sites and Water Purity, the Natural Environment  
and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

54. The proposed Project will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, and public health and safety, subject to, and upon compliance with, the conditions set forth below. This finding is supported by findings 55 through 98, below, which give due consideration to the criteria specified in 10 V.S.A. § 1424a(d) and 10 V.S.A. §§ 6086(a)(1) through (8) and (9)(K).

**Outstanding Resource Waters**

[10 V.S.A. § 1424a(d)]

55. The proposed Project does not require activity in the vicinity of any designated Outstanding Resource Water. Mallory pf. at 27; exh. VELCO-Mallory-15 at 4.

**Water and Air Pollution**

[10 V.S.A. §6086(a)(1)]

56. The Project will not result in undue water or air pollution. This finding is supported by findings 57 through 59, below.

57. Work during the construction phase of the proposed Project will result in minor air emissions, involving brief discharges or fugitive particulate dust generated during transport, earthmoving, and general construction practices, as well as from emissions at the site from the use of diesel and gasoline-powered support vehicles and equipment. In the past, VELCO has managed dust resulting from construction activities using such methods as water or calcium byproduct suppression, and has represented in this proceeding that it would manage dust from construction in accordance with the site-specific Erosion Prevention and Sediment Control Plan ("EPSC") approved for the Project. Mallory pf. at 27; tr. 5/20/11 at 25 (Mallory).

58. The Project will not result in undue noise pollution. VELCO will procure low noise transformers for the substation and has commissioned a noise baseline reading and analysis based on this design. The highest expected sound pressure level from the transformers at nearby residences is modeled to be 24 dBA with the cooling fans on. This sound level is at least 10 dBA less than the recorded baseline nighttime sound levels at this site. This is consistent with a quiet rural area. Construction activities will generate typical noise (e.g., truck back-up alarms, tailgates closing) which will be temporary. Mallory pf. at 27-28; exh. VELCO-Mallory-16.

59. The Project will not have an undue adverse impact on water quality. The proposed Project and private drive relocation will involve approximately four acres of earth disturbance. VELCO has acquired and will conduct Project activities pursuant to ANR Stormwater Construction General Permit (3-9020), which includes a site-specific EPSC. To prevent the release of oil from the transformers to the environment, VELCO will utilize a permanent oil containment system at the site. In addition, the substation site will be included in the VELCO Spill Prevention Control and Countermeasure (SPCC) plan, which includes spill response procedures and routine inspections of the facility. Compliance with the above-mentioned Project design and regulatory process will maintain Project activities in accordance with Vermont's

Water Quality Standards (2008), and therefore no undue adverse impacts to water quality will result. Mallory pf. at 28; exh. Petitioners 3.

### **Discussion**

On May 25, 2011, the Petitioners filed copies of ANR's approval of Project coverage under Stormwater Construction General Permit (3-9020), which includes the site-specific EPSC. VELCO has represented that it will manage dust from construction activities at the Project site in accordance with the terms and conditions of that site-specific EPSC. During the technical hearing, VELCO witness Mallory explained that in past projects, VELCO has used water or calcium byproducts to suppress dust from construction activities, but was unaware of the specific dust control measures that would be incorporated into the EPSC for the Project. A review of the EPSC submitted on May 25, 2011, reveals no specifics related to the control of dust generated by construction activities. Accordingly, it is difficult to understand how compliance with the EPSC will effectively manage dust, as represented by VELCO's witness.

Accordingly, I recommend the Board require the Petitioners, as a condition of approval, to utilize appropriate dust suppression techniques, such as the application of water or calcium byproduct, to control as needed dust generated from construction activities. Any water to be used for dust suppression purposes must be brought in from off-site.

### **Headwaters**

[10 V.S.A. §6086(a)(1)(A)]

60. The proposed Project will not result in an undue, adverse impact to any of Vermont's headwaters. This finding is supported by findings 61 through 63, below.

61. The Project will be located in lands that meet some of the headwaters criteria set forth in 10 V.S.A. § 6086 (a)(1)(A). Specifically, there are streams in the Project area that have a drainage area of less than 20 square miles, Project activities are proposed to occur at elevations of 1,500 to 1,600 feet above mean sea level, and portions of the Project area include varied slopes that range from 5 to 15% and are considered steep. The proposed Project is therefore located in a headwaters area. Mallory pf. at 29; exh. VELCO- Mallory-15 at 5.



62. There are no ANR-designated watersheds of public water supplies, or areas supplying significant amounts of recharge waters to aquifers in the Project area. Exh. VELCO-Mallory-15 at 5.

63. VELCO will conduct Project activities in a manner that mitigates and/or minimizes impacts on the applicable headwaters criteria. VELCO will grade and stabilize proposed areas of soil disturbance in accordance with the required authorization to discharge stormwater pursuant to Stormwater Construction General Permit (3-9020) and the project-specific EPSC Plan incorporated therein. As such, the Project will not have an undue adverse effect on headwaters. Mallory pf. at 29; exh. VELCO-Mallory-15, at 4; exh. Petitioners-3.

### **Waste Disposal**

[10 V.S.A. §6086(a)(1)(B)]

64. VELCO will chip any woody debris from the Project site on-site and use it for soil stabilization, or a contractor may remove the debris. VELCO will dispose of all construction debris in accordance with Vermont Department of Environmental Conservation's ("DEC") waste management regulations. VELCO will dispose of sanitary waste by installing a disposal system in accordance with any required permit authorizations. Therefore, neither Project construction nor operation will result in an undue adverse impact from waste disposal. Mallory pf. at 29-30.

65. VELCO conducted soil testing at the Project area and detected Total Petroleum Hydrocarbons ("TPH") at a concentration of 26.9 mg/Kg in soil boring location B2 as identified in VELCO's Soil Boring Oversight Report, which is below the DEC's 1,000 mg/Kg TPH threshold for treating industrial soils. Exh. Joint-1 at 2-3.

66. VELCO will conduct a Photo Ionization Detector ("PID") assessment of soils excavated proximate to soil boring location B2. If VELCO encounters contaminated soils (as determined by PID readings and olfactory and visual evidence of contamination), VELCO will temporarily stockpile the contaminated soils on plastic sheeting away from potential sensitive receptors, and remove the soils from the site for proper disposal in accordance with applicable regulations. Exh. Joint-1 at 4.

### **Water Conservation**

[10 V.S.A. §6086(a)(1)(C)]

67. VELCO will design the proposed substation facility with plumbing fixtures that employ low flow water conserving devices and/or sanitary disposal facilities such as a waterless toilet. Wastewater (if any) will be treated by appropriately permitted on-site septic tanks or leach fields. Any water usage at the station will be minimal as it will not be manned on a full-time basis. The Project will not involve expansion or redevelopment of existing water supplies for the substation nor will it use water for manufacturing purposes. As such the proposed Project will not have an undue adverse effect on water conservation. Mallory pf. at 30; exh. VELCO-Mallory-15 at 5.

### **Floodways**

[10 V.S.A. §6086(a)(1)(D)]

68. The available Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map indicates that the Project is not located on any lands that qualify as floodways under 10 V.S.A. § 6086(a)(1)(D). As such, the Project will not result in any adverse impacts to floodways. Mallory pf. at 30-31; exh. VELCO-Mallory-15 at 6.

### **Streams**

[10 V.S.A. §6086(a)(1)(E)]

69. The proposed Project will not result in an undue, adverse impact to any streams, provided the Petitioners comply with the condition set forth below. This finding is supported by findings 70 through 72, below.

70. The Petitioners investigated an area consisting of approximately 14 acres surrounding the Project site. Exh. VELCO-Mallory-15 at 1.

71. There are three streams within the area investigated by the Petitioners. The stream designated 2010-SC-C1 is a tributary to Stream 2010-SC-C2; both are intermittent streams located in the northwest section of the investigation area. Both streams have substrate consisting of a mix of gravel, pebble and sand. Stream TB-C3 is a perennial stream that is mapped by the Vermont Hydrographic Data as an unnamed tributary to Crook Brook, which is located along the

southwest border of the investigation area, with a substrate consisting of a mix of gravel, cobble, and boulder. Mallory pf. at 31; exh. VELCO-Mallory-15 at 3 of Appendix 2.

72. VELCO obtained ANR Stormwater Construction General Permit (3-9020) on March 14, 2011, and has developed a site-specific EPSC plan to ensure that no undue adverse stream impacts will result from Project construction. Mallory pf. at 31; Mallory pf. supp. at 2; exh. Petitioners-3.

73. No new stream crossings have been identified as needed for the Project at this time. If VELCO determines that a new crossing is necessary in connection with the Project in the future, VELCO will obtain the appropriate state and federal authorizations prior to conducting any construction activities related to such crossing. Further, if a new stream crossing is necessary, VELCO will perform any stream crossings in accordance with necessary permit authorizations and stream crossing methodologies included in the VELCO Environmental Guidance Manual, which both ANR and the United States Army Corps of Engineers ("USACE") have reviewed. Therefore, the Project will not create any undue adverse impacts to streams. Mallory pf. at 31-32; exh. Joint-1 at 2, 5; exh. VELCO-Mallory-15 at 7.

### **Discussion**

As noted above, on May 25, 2011, the Petitioners filed a copy of both the ANR Stormwater Construction General Permit (3-9020) and the site-specific EPSC, and compliance with those documents will prevent any undue stream impacts from the Project. However, while the Petitioners do not anticipate the need for any new stream crossings at this time, they have also not yet entirely ruled out the possibility that one or more may be needed in the future. Accordingly, I recommend that the Board condition approval of the proposed Project on the requirement that the Petitioners obtain any and all required permits if they determine new stream crossings are required to construct the Project, to notify the Board if such a determination is made, and to file copies of any required permits as they are obtained.

**Shorelines**

[10 V.S.A. §6086(a)(1)(F)]

74. No activities for the Project are proposed to take place within shoreline areas. As such, the Project will have no adverse impacts to shorelines. Mallory pf. at 32; exh. VELCO-Mallory-15 at 8.

**Wetlands**

[10 V.S.A. §6086(a)(1)(G)]

75. The Project will not have an undue adverse impact on wetlands. This finding is supported by findings 76 through 79, below.

76. There are several contiguous Class II wetlands and one Class III wetland in the Project area. VELCO has worked with ANR and USACE to appropriately classify and document wetlands, and conducted a site visit in September, 2010, with ANR and USACE wetland staff to review the resource assessment and to discuss the Project. Unavoidable wetland and buffer impacts are necessary to construct the substation and interconnecting line. Anticipated impacts include the placement of fill and construction matting and vehicle access in one Class II wetland and the associated buffer zone. VELCO has categorized and calculated these impacts as part of its Individual Wetland Permit application, which was submitted to ANR on February 2, 2011. Mallory pf. at 33; exh. Joint-1 at 3; exh. VELCO-Mallory-15 at 8.

77. VELCO received an Army Corps of Engineers Vermont General Permit on March 1, 2011. VELCO received an ANR Individual Wetland Permit on April 26, 2011. Mallory pf. supp. at 2; exhs. Petitioners-2 and 4.

78. All construction activities occurring in the Class II wetland and associated buffer zone will be conducted in accordance with the terms and conditions of the Individual Wetland Permit. Exh. Joint-1 at 5.

79. Environmental compliance staff will routinely inspect the work to ensure that VELCO conducts Project activities in accordance with the Project's permit authorizations. Mallory pf. at 33.

**Discussion**

The wetlands criterion under Act 250,<sup>1</sup> as incorporated into Section 248,<sup>2</sup> requires that a proposed development comply with the state's rules relating to significant wetlands. Section 9.5 of the Vermont Wetland Rules ("VWR") requires that any activity within a Class II wetland or its buffer zone have no undue adverse effect on protected functions and values. The Individual Wetland Permit obtained by the Petitioners concludes that there will be no undue adverse impacts to the subject significant wetland and buffer zone, provided the terms and conditions of the permit are complied with.<sup>3</sup> Accordingly, I recommend the Board condition approval of the proposed Project on compliance with all requirements of the State Individual Wetland Permit, as well as the USACE General Permit.

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. §6086(a)(2) and (3)]

80. The current Project design does not involve expansion or development of any additional water supplies for the substation. If it is determined that water supplies are needed, VELCO will obtain the appropriate permitting approval and install a potable drinking well at the site, as municipal supplies are not available in the Project area. As such, the Project will not have an undue adverse impact to water supplies. Mallory pf. at 33; exh. VELCO-Mallory-15 at 11.

**Soil Erosion**

[10 V.S.A. §6086(a)(4)]

81. VELCO will perform Project activities pursuant to VELCO's Environmental Guidance Manual and ANR Best Management Practices. Moreover, VELCO will construct the Project in accordance with the ANR Stormwater Construction General Permit (3-9020) and associated

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1. 10 V.S.A. § 6086(a)(1)(G).

2. Under Section 248, the Board must give "due consideration" to the criteria specified in 10 V.S.A. § 6086(a)(1)(G). 30 V.S.A. § 248(b)(5).

3. Exh. Petitioners-4 at 1-2.

EPSC Plan. The Plan includes the installation of erosion control measures, monitoring and maintenance of the measures, inspections and proactive actions to address areas that pose significant erosion potential. As such, the Project will not result in undue adverse soil erosion. Mallory pf. at 33-34; exh. VELCO-Mallory-15 at 11; exh. Petitioners-3.

### **Transportation Systems**

[10 V.S.A. §6086(a)(5)]

82. The proposed Project will not have an undue adverse impact on area transportation systems. This finding is based on findings 83 through 85, below.

83. The Petitioners expect no long-term traffic impacts from the Project and only minor short-term traffic impacts due to deliveries of Project equipment to the substation site during the construction period. Such deliveries will use existing roads with vehicles that are commonly used on such public roads. Mallory pf. at 34.

84. A Vermont Association of Snow Travelers ("VAST") trail crosses the access road for the Project to the east of the VEC switching station. Equipment deliveries during winter weather may briefly affect use of the VAST trail. Mallory pf. at 34.

85. The Petitioners will obtain any necessary permits from the Vermont Agency of Transportation for the transport of oversized components to the Project site prior to the transport of any such materials. Tr. 5/20/11 at 28 (Mallory).

### **Educational and Municipal Services**

[10 V.S.A. § 6086(a)(6) & (7)]

86. The proposed Project will not have an adverse impact on educational or other municipal services. Mallory pf. at 35.

### **Aesthetics, Historic Sites and Rare and Irreplaceable Natural Areas**

[10 V.S.A. §6086(a)(8)]

87. The proposed project will not have an undue adverse effect on aesthetics or on the scenic or natural beauty of the area, subject to, and upon compliance with, the condition set forth

below. Additionally, the Project will not have an undue adverse effect on historic sites or rare and irreplaceable natural areas. This finding is supported by findings 88 through 98, below.

88. The proposed substation will be constructed within a fenced perimeter on a 4-acre parcel located west of Leavitt Circle in Jay, Vermont. Leavitt Circle is a Class 3 Town Road that accesses approximately a half dozen residential properties, and will also contain the access road to the substation. Exh. VELCO-Mallory-14 at 6; Mallory pf. at 3.

89. The Project site is a remote parcel just west of Leavitt Circle and south of Route 105. The site currently contains existing transmission infrastructure consisting of a 115 kV VELCO line and a 46 kV VEC line transecting the parcel from southeast to northwest, running generally parallel to Route 105. A second VEC 46 kV line begins on the property and runs southwest to the Jay Peak Resort area. Additionally, immediately adjacent to the eastern edge of the proposed Project site, the VEC Jay Peak Switching Station is currently under construction. Exh. VELCO-Mallory-14 at 5; exh. VELCO-Mallory-2.

90. The highest potential for public views of the Project is from Route 105, the edge of which is located approximately 200 feet from the Project's northern fence. While there is an existing vegetative buffer, clearing for the Project and relocation of an existing driveway will create some openings in this screening. Additionally, views will be more prominent in winter and during "leaf off" conditions. Exh. VELCO-Mallory-14 at 6.

91. Views from Route 105 are partially mitigated due to the fact the Project elevation is approximately 40 to 60 feet lower than the elevation of the road. Additionally, the Petitioners have proposed landscape mitigation to improve screening of Project infrastructure. Specifically, the Petitioners propose to plant deciduous and evergreen trees north of the substation to reinforce existing screening and to fill gaps created by construction, as well as to the east of the substation and just north of Leavitt Circle to improve screening from that road and adjacent residences. Any plantings that occur within the transmission right-of-way ("ROW") will be in compliance with VELCO's ROW maintenance specifications to ensure heights compatible with transmission lines. Exh. VELCO-Mallory-14 at 7.

92. The view from Leavitt Circle will include more transmission infrastructure due to the new substation, and the visibility of the transmission infrastructure will increase slightly due to

the relocation of the existing transmission line. However, the view exists for only a limited portion of the road, and as noted in the previous finding, the Petitioners will plant some vegetative screening to mitigate these impacts. Exh. VELCO-Mallory-14 at 6.

93. The only other viewing locations accessible to the general public in the area are from the higher elevations of the Jay Peak Resort. However, these views are from distances of over 3.5 miles and the substation therefore will not appear as a prominent feature in the landscape. Exh. VELCO-Mallory-14 at 7.

94. The Long Trail passes the Project at distances as close as 1.5 miles. However, views from the trail are largely blocked by forest cover, except for one possible location where the trail crosses the summit of Jay Peak, which, as noted above, is approximately 3.5 miles from the Project site. Exh. VELCO-Mallory-14 at 7-8.

95. The Project tract is not listed in the state or federal registers of historic sites. Mallory pf. at 24.

96. The University of Vermont Consulting Archaeology Program performed an Archaeological Resource Assessment ("ARA") report of the site and concluded that no additional archaeological work was necessary as the Project would not disturb significant archaeological resources and would have no effect on historic sites. VELCO submitted the ARA report to the Vermont Department of Historic Preservation ("DHP") on September 9, 2010. The DHP subsequently issued a "No Effect" determination for the Project. Mallory pf. at 24; exh. VELCO-Mallory-13.

97. With respect to above-ground historic sites, VELCO commissioned T.J. Boyle Associates to determine whether any historic sites are within the viewshed of the proposed substation and connecting lines. There are no above-ground sites located in the viewshed that are listed on either the state or federal registers of historic sites. DHP issued a "No Effect" determination specifically for above-ground properties. Mallory pf. at 24; exh. VELCO-Mallory-13.

98. The Project will have no adverse impacts on rare and irreplaceable natural areas. Exh. VELCO-Mallory-15 at 15.



**Discussion**

Based on the above findings, I find that the proposed project will not have an undue adverse effect on the aesthetics or scenic and natural beauty of the area. In determining whether a proposed project would have an undue adverse impact on aesthetics, the Board has adopted the Environmental Board's Quechee test. The Board has previously summarized the analysis under Quechee as follows:

In order to reach a determination as to whether the project will have an undue adverse effect on the aesthetics of the area, the Board employs the two-part test first outlined by the Vermont Environmental Board in Quechee, and further defined in numerous other decisions.

Pursuant to this procedure, first a determination must be made as to whether a project will have an adverse impact on aesthetics and the scenic and natural beauty. In order to find that it will have an adverse impact, a project must be out of character with its surroundings. Specific factors used in making this evaluation include the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space.

The next step in the two-part test, once a conclusion as to the adverse effect of the project has been reached, is to determine whether the adverse effect of the project is "undue." The adverse effect is considered undue when a positive finding is reached regarding any one of the following factors:

1. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?
2. Have the applicants failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings?
3. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?<sup>4</sup>

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4. *Amended Petition of UPC Vermont Wind*, Docket 7156, Order of 8/8/07 at 64–65.

In addition to the Quechee analysis, the Board's consideration of aesthetics under Section 248 is "significantly informed by overall societal benefits of the project."<sup>5</sup>

The Petitioners retained T.J. Boyle Associates to perform an aesthetics analysis for the Project. That analysis concludes that the Project's visual impacts will not be adverse because: (1) the site is appropriately located to limit views for a large extent of the surrounding geographic area; (2) potential public viewing locations will be primarily limited to a short stretch of Route 105 adjacent to the substation; (3) public views that may be possible are limited in duration and Project components will be further screened by proposed landscape mitigation plantings; and (4) views that do exist will view the proposed substation in context with the adjacent Jay Peak Switching Station and existing transmission lines. The analysis highlights five areas of potential views with none of them being noted as having an adverse impact.<sup>6</sup>

The new substation will result in a noticeable increase in infrastructure at the project site. A review of the substation plans contained in Exhibit VELCO-Mallory-2 shows that this increase will be significant. Additionally, while Project views from Route 105 and Leavitt Circle will be screened to a fairly large extent, construction of the Project will increase visibility to the Project site to some degree, and I therefore conclude its impacts will be adverse. However, I conclude that any adverse aesthetic impacts of the Project will not be undue, provided the Petitioners implement the proposed vegetative screening plan. First, the Project does not conflict with a clear, written community standard. The Town of Jay Select Board and Planning Commission, and the NVDA each issued letters in support of the Project, stating that the Project is consistent with the 2005 Jay Community Development Plan and the NVDA Regional Plan.<sup>7</sup> Second, the Petitioners have taken a number of steps to mitigate the aesthetic impacts of the Project by locating the Project in an area with limited views, siting it at a low elevation site which reduces views from Route 105, siting the Project adjacent to existing infrastructure so that visual impacts are only incremental in nature, and proposing to implement a vegetative screening plan. Lastly,

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5. *In Re: Northern Loop Project*, Docket 6792, Order of 7/17/03 at 28.

6. Mallory pf. at 25; exh. VELCO-Mallory-14.

7. Exh. VELCO-Mallory-11.

any negative aesthetic impacts of the Project will not be shocking or offensive when viewed within the context of the Project location's current condition, which historically and presently includes transmission infrastructure, including the Jay Peak Switching Station that is currently under construction. For these reasons, I conclude that any adverse aesthetic impacts of the Project will not be undue, provided the Board conditions its approval on implementation of the vegetative screening plan.

**Necessary Wildlife Habitat and Endangered Species**

[10 V.S.A. §6086(a)(8)(A)]

99. There are no Threatened or Endangered species or necessary wildlife habitat within the Project area. A bear-crossing corridor is located near the Project site along Route 105. However, the corridor is on the north side of Route 105, and the Project site is on the south side of Route 105. Mallory pf. at 35; exh. VELCO-Mallory-15 at 13; tr. 5/20/11 at 27-28 (Mallory).

**Development Affecting Public Investments**

[10 V.S.A. §6086(a)(9)(K)]

100. The Project will not unnecessarily or unreasonably endanger any public or quasi-public investment in any facility, service, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to any facility, service, or lands. Mallory pf. at 36.

**Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

101. The Project will not unnecessarily or unreasonably endanger the public or adjoining landowners. VELCO will design the Project in accordance with the National Electric Safety Code requirements. The Petitioners will use high-quality materials, and adhere to prudent utility construction practices throughout the construction phase. Mallory pf. at 37.

### **Least-Cost Integrated Resource Plan**

[30 V.S.A. § 248(b)(6)]

102. The proposed project is consistent with the principles for resource selection expressed in the Petitioners' approved least-cost integrated resource plans ("IRP"). This finding is supported by findings 103 and 104, below.

103. While VELCO does not have an IRP, the Project is consistent with VELCO's 2009 Vermont Transmission System 10-Year-Long Range-Plan Analysis ("VELCO Plan"). The VELCO Plan did not list the Project specifically as a priority transmission project, but noted voltage support problems and transformer and line overloads as occurring sooner with VELCO serving all of VEC's load. Further, VELCO did not complete the planning analysis to identify problem specifics and transmission solutions until 2010, after the VELCO Plan was developed. Mallory pf. at 37.

104. VEC filed its latest IRP with the Public Service Board on July 1, 2008. The Board approved the Transmission and Distribution portion of the IRP on July 31, 2009. VEC's IRP specifically identified the need to complete upgrades to the various facilities on its 46 kV transmission system. Abendroth pf. at 5.

### **Compliance With Twenty Year Electric Plan**

[30 V.S.A. §248(b)(7)]

105. The proposed project is consistent with the Vermont *Twenty-Year Electric Plan*. This finding is supported by findings 106 and 107, below.

106. Vermont's *Twenty-Year Electric Plan*, adopted by the DPS in January of 2005, sets forth several basic objectives that must be satisfied in serving the public interest. When utilities design and implement long-range resource plans, the *Electric Plan* requires them to strive to meet Vermont's electric energy needs in a manner that is "efficient, adequate, reliable, secure, sustainable, affordable, safe, and environmentally sound, while encouraging the state's economic vitality and maintaining consistency with other state policies." Utilities must "carefully balance[]" these objectives. The Project strikes the proper balance among each of these objectives. Mallory pf. at 38 (quoting *Twenty-Year Electric Plan*).

107. On May 12, 2011, the DPS filed a letter stating that the proposed Project is consistent with the Vermont *Twenty-Year Electric Plan*, pursuant 30 V.S.A. § 202(f), provided the Project is constructed as described by VELCO.

**Outstanding Resource Waters**

[30 V.S.A. § 248(b)(8)]

108. The proposed Project does not require activity in the vicinity of any designated Outstanding Resource Water. Mallory pf. at 27; exh. VELCO-Mallory-15 at 4.

**Waste-to-Energy Facility**

[30 V.S.A. § 248(b)(9)]

109. The proposed Project does not involve construction of a waste-to-energy facility. Therefore, this criterion is inapplicable.

**Existing or Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

110. Existing transmission facilities can serve the Project without creating an undue adverse effect on Vermont utilities and ratepayers. The proposed substation will be adjacent to existing transmission lines and the Project is designed to enhance the existing utility system and to improve service to customers. Regarding the utility-to-utility interface, VEC and VELCO are currently coordinating safety practices during construction of the VEC Jay Peak Switching Station as it is near an energized overhead line, and will continue to coordinate with regard to the proposed substation during its engineering, construction, and operational phases. Prior to substation operation, a site-specific operational one-line diagram with company demarcation lines will be agreed upon as well as training on communications and operations between the utilities. Mallory pf. at 41-42.

#### **IV. CONCLUSION**

Based upon all the above evidence, and with the conditions I recommend the Board include as part of the approval of the Project, I conclude that the Project:

- (a) will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, and the recommendations of the municipal legislative bodies;
- (b) is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and land management measures;
- (c) will not adversely affect system stability and reliability;
- (d) will result in an economic benefit to the state and its residents;
- (e) will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) and §§ 6086(a)(1) through (8) and (9)(K);
- (f) is consistent with the principles of least-cost integrated resource planning;
- (g) is in compliance with the electric energy plan approved by the Department under § 202 of Title 30 V.S.A.;
- (h) does not involve a facility affecting or located on any segment of the waters of the State that has been designated as outstanding resource waters by the Water Resources Board;
- (i) does not involve a waste-to-energy facility; and
- (j) can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers.

Pursuant to the MOU between all parties to this proceeding, the parties have waived their rights under 3 V.S.A. § 811 to file written comments or present oral argument with respect to this Proposal for Decision, provided that this Proposal for Decision is substantially in the form as that agreed to by the parties. I am circulating this Proposal for Decision for comment by the parties because, while it is largely consistent with the form of decision proposed by them, there are some minor variations. Accordingly, I have determined that it is appropriate to give the parties a brief opportunity to provide comments to the Board.

Dated at Montpelier, Vermont, this 19<sup>th</sup> day of July, 2011.

s/John J. Cotter

John J. Cotter, Esq.

Hearing Officer

### **V. BOARD DISCUSSION**

In a letter dated July 15, 2011, but not received by the Board until July 19, 2011, ANR filed comments on the Proposal for Decision issued in this Docket, asking that the Board include in the final Order the following condition:

VELCO will conduct a Photo Ionization Detector ("PID") assessment of soils excavated proximate to soil boring location B2. If VELCO encounters contaminated soils (as determined by PID readings and olfactory and visual evidence of contamination), VELCO will temporarily stockpile the contaminated soils on plastic sheeting away from potential sensitive receptors, and remove the soils from the site for proper disposal in accordance with applicable regulations.

This obligation was imposed on VELCO by paragraph 5(a) in the Memorandum of Understanding among VELCO, VEC, ANR and the DPS, and was incorporated into the Proposal for Decision at Finding 66. ANR did not request oral argument.

On July 18, 2011, the Petitioners filed a letter stating that they had no comments on the Proposal for Decision and were not seeking oral argument. The letter stated that the Petitioners were authorized to state that the DPS did not have any comments and was not seeking oral argument. Lastly, the Petitioners stated that they were aware of ANR's requested condition and had no objection to it.

ANR's request is reasonable. We will include the requested condition in the final Order and Certificate of Public Good in this proceeding.

### **VI. ORDER**

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officer are adopted.
2. The project as proposed, in accordance with the evidence and plans submitted in this proceeding, and as conditioned by this Order, will promote the public good of the State of Vermont in accordance with 30 V.S.A. § 248.
3. Prior to proceeding with construction, Vermont Electric Power Company, Inc., and Vermont Transco LLC (collectively, known as "VELCO"), and Vermont Electric Cooperative,



Inc. (together with VELCO, the "Petitioners"), shall obtain all necessary permits and approvals. Construction, operation, and maintenance of the proposed project shall be in accordance with such permits and approvals, and with all other applicable regulations, including those of the Vermont Agency of Natural Resources and the U.S. Army Corps of Engineers.

4. Petitioners shall utilize appropriate dust-suppression techniques, such as the application of water or calcium byproduct, to control as needed dust generated from construction activities. Any water to be used for dust-suppression purposes must be brought in from off-site.

5. If Petitioners determine that additional stream crossings are necessary, they shall notify the Board that such a determination has been made, obtain any and all required permits, and file copies of any required permits with the Board as they are obtained.

6. Petitioners shall implement the proposed vegetative screening plan.

7. Petitioners shall install low noise transformers for the substation consistent with the noise analysis performed for the substation.

8. VELCO shall conduct a Photo Ionization Detector ("PID") assessment of soils excavated proximate to soil boring location B2. If VELCO encounters contaminated soils (as determined by PID readings and olfactory and visual evidence of contamination), VELCO shall temporarily stockpile the contaminated soils on plastic sheeting away from potential sensitive receptors, and remove the soils from the site for proper disposal in accordance with applicable regulations.

Dated at Montpelier, Vermont, this 29<sup>th</sup> day of July, 2011.

<u>s/James Volz</u>	)	
	)	PUBLIC SERVICE
	)	
<u>s/David C. Coen</u>	)	BOARD
	)	
	)	OF VERMONT
<u>s/John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED: July 29, 2011

ATTEST: s/Susan M. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*

